

### REMARKS

This Amendment responds to the Office Action dated February 9, 2006 in which the Examiner objected to claims 1 and 7-13, rejected claim 13 under 35 U.S.C. §112, first paragraph, and under 35 U.S.C. §102(b), and stated that claims 1-12 are allowed.

As indicated above, minor informalities in claims 1 and 7-13 have been corrected. Therefore, Applicant respectfully requests the Examiner withdraws the objection to claims 1 and 7-13.

As indicated above, claim 13 has been amended for a measuring step using a divergent beam as disclosed in the specification. Applicant respectfully submits that the amendment does not narrow the literal scope of the claim. Therefore, Applicant respectfully requests the Examiner withdraws the rejection to claim 13 under 35 U.S.C. §112, first paragraph.

Claim 13 claims a method for X-ray analysis in which X-rays are emitted from an X-ray source to strike a specimen in a form of either a divergent beam or a parallel beam, and X-rays which emerge from the specimen are detected by a two-dimensional X-ray detecting means. The method has a measuring step using the divergent beam. The measuring step using the divergent beam comprises the steps of shifting an angle of incidence of X-rays striking the specimen by rotating either the specimen or the X-ray source around a central axis of rotation running through a surface of the specimen, arranging a mask having a slit in front of the two-dimensional X-ray detecting means so as to make the slit to be located on a line intersecting a plane rectangularly intersecting the central axis of rotation and containing a central optical axis of incident X-rays and moving the two-dimensional

X-ray detecting means in parallel with the central axis of rotation in synchronism with the shift of the angle of incidence of X-rays relative to the specimen.

Through the method of the claimed invention having a two-dimensional X-ray detecting means including the steps of a) arranging a mask having a slit to make the slit located on a line intersecting a plane rectangularly intersecting a central axis of rotation and b) moving the two-dimensional X-ray detecting means in parallel with the central axis of rotation in synchronism with the shift of the angle of incidence of X-rays relative to the specimen, as claimed in claim 13, the claimed invention provides a method in which both a parallel beam and focusing method can be used. The prior does not show, teach or suggest the method as claimed in claim 13.

Claim 13 was rejected under 35 U.S.C. §102(b) as being anticipated by *Iwasaki et al.* (JP 09-229879).

Applicant respectfully traverses the Examiner's rejection of claim 13 under 35 U.S.C. §102(b). The claim has been reviewed in light of the Office Action and for reasons which are set forth below, Applicant respectfully requests the Examiner withdraws the rejection to the claim and allows the claim to issue.

*Iwasaki et al.* appears to disclose an X-ray apparatus which can perform both a focusing X-ray measurement and a parallel beam X-ray measurement without changing arranging positions of an X-ray optical element. A three-slit optical system 11 has three slits 5, 6, 7 arranged between an X-ray source F and a sample S. The sample S and X-ray detector 2 are loaded on a goniometer 4. Distance R1 between the X-ray source and the sample is set to be equal to the distance R2 between the sample and a fifth slit 21. A parallel beam X-ray measurement is achieved with the

use of the three-slit optical system 11. If the first slit 5 is open and the second slit 6 is used as a divergent regulation slit, a focusing X-ray measurement is enabled.

Attached to this Amendment is a machine translation of *Iwasaki et al.* Applicant respectfully brings the Examiner's attention to paragraph [0014] which states that the detector 2 of *Iwasaki et al.* is a single dimension X-ray detector. Thus, nothing in *Iwasaki et al.* shows, teaches or suggests a two-dimensional X-ray detecting means as claimed in claim 13. Rather, *Iwasaki et al.* teaches away from the claimed invention and merely discloses a single dimension X-ray detecting means.

Additionally, *Iwasaki et al.* discloses a slit 21 extending along a central axis of rotation as shown in Figures 1 and 2. However, as claimed in claim 13, the slit is located on a line intersecting a plane rectangularly intersecting the central axis of rotation (i.e., the slit extends in a direction perpendicular to the central axis of rotation). However, *Iwasaki et al.* teaches away from the claimed invention since the slit 21 extends along the central axis of rotation (i.e., slit extends in parallel to the central axis of rotation).

Finally, as shown in Figure 2 of *Iwasaki et al.*, the X-ray detecting means 2 is moved around the central axis of rotation  $\omega$ . However, as claimed in claim 13, the two-dimensional X-ray detecting means is moved in parallel with the central axis of rotation (i.e., "the rotation of the detecting means in parallel with the central axis of rotation" is analogous to keeping the detecting means still relative to the central axis). However, *Iwasaki et al.* teaches away from the claimed invention since the detecting means 2 is rotated around the central axis of rotation (see Figure 2 of *Iwasaki et al.*). In other words, in the one-dimensional X-ray detecting device of

*Iwasaki et al.*, the one-dimensional detecting device must be rotated around the central axis on the sample to receive X-rays emerging from the sample in different diffraction angles. However, in a two-dimensional X-ray detecting device, the detecting device can receive X-rays emerging from the sample in different diffusion angles at the same time while the detecting means is kept still due to the slit extending perpendicular to the central axis of rotation.

Since *Iwasaki et al.* is directed to a one-dimensional X-ray detecting means and does not show, teach or suggest arranging a mask having a slit located on a line intersecting a plane rectangularly intersecting the central axis of rotation and moving a two-dimensional detecting means in parallel with the central axis of rotation as claimed in claim 13, Applicant respectfully requests the Examiner withdraws the rejection to claim 13 under 35 U.S.C. §102(b).

Thus, it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested. Should the Examiner find that the application is not now in condition for allowance, Applicant respectfully requests the Examiner enters this Amendment for purposes of appeal.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicant respectfully petitions for an appropriate extension of time.

The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL PC

A handwritten signature in black ink, appearing to read 'EMAS', is written over a horizontal line.

By:

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Date: May 8, 2006

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